What is claimed is:

1. A broadcasting control system in an ATM ring network in which a control cell containing control information is transmitted by ATM (Asynchronous Transfer Mode) between a plurality of nodes connected into a ring shape,

each of the nodes comprising:

receiving means for receiving a control cell from an upstream node; and

transmitting means for writing response information of the self node for the control information contained in the received control cell in an area corresponding to the self node in the control cell and transmitting the control cell to a downstream node.

2. A system according to claim 1, wherein the control cell contains the control information, and a plurality of pieces of response information and flag information for the respective nodes.

3. A system according to claim 2, wherein said transmitting means transmits the control cell to which the response information of the self node responding to the control information and flag information representing response of the self node are attached.

4. A system according to claim 1, wherein a value of a virtual path identifier is preset for each node.

5. A system according to claim 1, wherein in a control information transmission source node, said transmitting means transmits the control cell containing control information to the modes except the transmission source node by broadcasting.

6. A system according to claim 1, wherein

said system further comprises processing control means for outputting to said transmitting means a processing control result according to control data from said receiving means as response information,

said receiving means outputs the control data contained in the received control cell to said processing control means and transfers the received control cell to said transmitting means, and

said transmitting means writes the response information from said processing control means in the area corresponding to the self node in the control cell from said receiving means and transmits the control cell.

7. A broadcasting control system in an ATM ring network in which a control cell containing control information is transmitted by ATM (Asynchronous Transfer

Mode) between a plurality of nodes connected into a ring shape,

each of the nodes comprising:

receiving means for receiving a control cell containing control information from an upstream node, the control cell having a first area where the control information is written before transmission of the control cell, and a plurality of second areas provided in correspondence with the respective nodes, where response information for the control information is written during control cell transmission; and

transmitting means for writing, in the second area, response information of the self node for the control information in the first area, and transmitting the control cell containing the control information and the pieces of response information of the respective nodes to a downstream node.

8. A system according to claim 7, wherein the control cell has a plurality of third areas, provided in correspondence with the respective nodes, where flag information representing that the response information has been written in the second area is written.

9. A broadcasting control method in an ATM ring network in which a control cell containing control information is transmitted by ATM (Asynchronous Transfer

Mode) between a plurality of nodes connected into a ring shape, comprising the steps of:

transmitting a control cell from a control information transmission source node to the remaining nodes except the transmission source node; and

in each of the nodes except the transmission source node, writing response information of the self node for the control information contained in the received control cell in an area corresponding to the self node in the control cell and repeatedly transmitting the control cell to a downstream node.

10. A method according to claim 9, wherein the control cell contains the control information, and a plurality of pieces of response information and flag information for the respective nodes.

11. A method according to claim 10, wherein the transmitting step comprises the step of attaching the response information of the self node responding to the control information and flag information representing response of the self node to the control cell and transmitting the control cell.

12. A method according to claim 9, wherein a value of a virtual path identifier is preset for each node.